



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,049	03/31/2004	Yew Wee Cheong	111079-136357	5732
25943	7590	02/02/2006		
SCHWABE, WILLIAMSON & WYATT, P.C. PACWEST CENTER, SUITE 1900 1211 SW FIFTH AVENUE PORTLAND, OR 97204			EXAMINER SHAKERI, HADI	
			ART UNIT	PAPER NUMBER
			3723	

DATE MAILED: 02/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/814,049	<b>Applicant(s)</b> CHEONG, YEW WEE	
	<b>Examiner</b> Hadi Shakeri	<b>Art Unit</b> 3723	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 28-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>071204</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Group I claims 1-27 in the reply filed on 121405, is acknowledged.

### *Claim Rejections - 35 USC § 102*

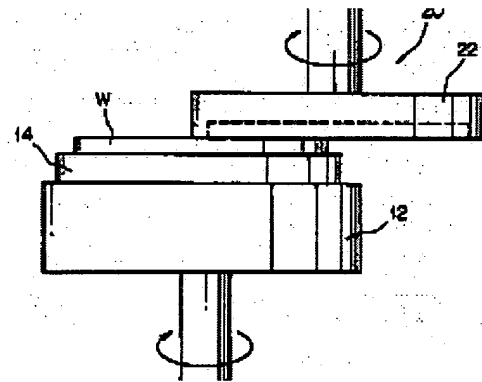
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-4, 6, 8-10, 13, 14, 16, 17, 19, 24, 25 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohkuni et al. (6,077,149).

Ohkuni et al. discloses all of the limitations of claims 1 and 16, i.e., a method comprising applying an adhesive gel (wax) to a first portion of a wafer, positioning the wafer, grinding the other side of the wafer and allowing the gel to release the wafer or removing the wafer from a vacuum chuck by reducing the surface contact (inherent). Note that lacking limitations to define the gel, wax material is considered to meet the limitation.



Regarding claims 2-4, 6, 8-10, 13, 14, 17, 19, 24, 25 and 27, Ohkuni et al. meets the limitations, e.g., the vacuum turned off, i.e., the wafer is affixed to the platform (14) in the positioning step does not require the vacuum to be on; partially diced wafer is met by a wafer needing backgrinding for a desired thickness; a wafer having irregularities on its lower surface is considered to meet the limitations "structures" and/or "bump".

Art Unit: 3723

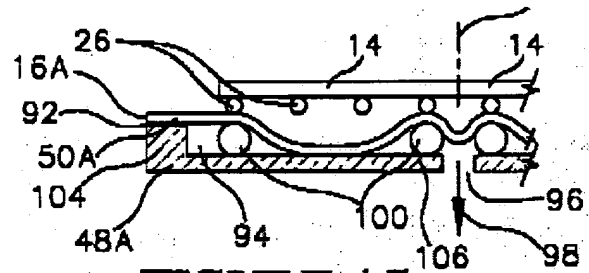
**Claim Rejections - 35 USC § 103**

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 8-22, and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Farnworth et al. (6,136,137).

AAPA, e.g., Figs. 1-3 and pages 2-4, meets all of the limitations of the above claims, except for disclosing the use of adhesive gel. Farnworth et al. teaches system and methods for dicing wafers in



which pressure sensitive adhesive tapes, or silicone gels (04:44). It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the invention of AAPA with the use of silicone gel as taught by Farnworth to adapt the system for providing adhesion that permits ease of separation (04:41-43). Farnworth meets all of the limitations of the independent claims, e.g., gel material having membrane (50A).

6. Claims 7 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art (AAPA as modified by Farnworth) as applied to claims 1 and 16 above, and further in view of Kataoka et al. (6,273,791).

Prior art as applied above meets all of the limitations, except for disclosing washing the wafer. Kataoka et al. discloses that typically in the producing IC semiconductors, wafers go through a step of washing. It would have been obvious to one of ordinary skill in the art, at the

Art Unit: 3723

time the invention was made, to further modify the prior art invention with the step of washing to preparer the wafer for the next stage of production in view of Kataoka et al.

### ***Conclusion***

7. Prior art made of record and not relied upon are considered pertinent to applicant's disclosure. Murari et al., Jiang et al., Ebe et al. are cited to show related inventions.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hadi Shakeri whose telephone number is (571) 272-4495. The examiner can normally be reached on Monday-Friday.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Hadi Shakeri  
Primary Examiner  
Art Unit 3723

January 30, 2006